

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : MIKAMI, et al.
App. No. : 10/530,135
Filing Date : April 4, 2005
For : PLANAR ANTENNA FITTED
WITH A REFLECTOR
Examiner : Chen, Shih Chao

Group Art Unit: 2821

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1. I, Koichi MIKAMI, declare as follows:
2. My address is: Nippon Antena Kabushiki Kaisha Warabi-koujyo of 7-4, Kitamachi 4-chome, Warabi-shi, Saitama 335-0001 JAPAN.
3. I am an engineer at NIPPON ANTENA KABUSHIKI KAISHA (TOKYO, JAPAN) and have over 12 years of experience in Antennas and Electrical Engineering. I am knowledgeable in the design and function of antennas.
4. I am a co-inventor of U.S. Application Serial No. 10/530,135 entitled "PLANAR ANTENNA FITTED WITH A REFLECTOR.
5. I am aware US Patent 3,568,206 by Sisson et al. (Sisson '206) has been cited to support a 35 U.S.C. 102(b) rejection of Claims 1, 3, 11 and 12 of the present application.
6. Also, I am aware Sisson '206 in combination with US Patent 6,606,067 by Jeong-Kun et al. (Jeong-Kun '067) have been cited to support a 35 U.S.C. 103(a) rejection of Claims 6, 8, 9, and 14 – 16 of the present application.
7. I have reviewed Sisson '206 and the Non-Final Rejection mailed on October 17, 2007.
8. The antenna disclosed in Sisson'206 is a miniature transmission line loaded slot antenna. Conventional annular slot antennas are approximately one-half wavelength in diameter; however Sisson '206 discloses a similar antenna having a diameter of only approximately 0.05 wavelength.

9. The antenna disclosed in Sisson '206 is an annular slot antenna loaded with an annular slot in a cavity resonator, and the cavity does not function as a reflector.

10. The antenna in Sisson '206 has a fundamentally different function in its operation from the present invention: a planar antenna fitted with a reflector.

11. Sisson '206 gives the distance "6" or "1" as 0.01λ . The Present Invention gives the distance "D" as between 0.06λ and 0.15λ . I am aware the Examiner has maintained that distance "6" in Sisson '206 could be between 0.06λ and 0.15λ since the specification states it "may vary considerably".

12. A person of ordinary skill in the art would reasonably conclude that distance "6" in Sisson '206 could not be between 0.06λ and 0.15λ ; because the antenna would no longer function to solve the special problem for which it was designed.

13. The Non-Final Rejection (10/17/2008) states feature "7" in Sisson '206 is a "radiator". However, Sisson '206 states that feature "7" is a "spiral conductor".

14. Feature "7" in Sisson '206 cannot be a radiator, since it has essentially "no radiation" and is designed to be a "spiral conductor".

15. A person of ordinary skill in the art would reasonably conclude that Sisson '206 does not disclose each and every feature of Claims 1, 3, 11 and 12; and does not disclose, in combination with Jeong-Kun '067, each and every feature of claims 6, 8, 9, and 14 – 16; at least because Sisson '206 lacks the features discussed above.

16. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. Moreover, these statements were made with the knowledge that willful false statements are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Date: March 12, 2008

Koichi MIKAMI
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